

CLAIMS

What is claimed is:

1. A transceiver unit for use with a wireless communications system, the
5 transceiver unit comprising:

a communication interface to facilitate communication between the transceiver

and an access network unit over an undedicated public network.

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2. The transceiver unit, as set forth in claim 1, wherein the
communication interface comprises at least one protocol layer.
- 15 3. The transceiver unit, as set forth in claim 2, wherein the at least one
protocol layer maintains an IP address of the access network unit.
- 20 4. The transceiver unit, as set forth in claim 2, wherein the at least one
protocol layer converts information received from the access network unit over the
public network to RF signals to be communicated by the transceiver unit over an air
interface.

5. The transceiver unit, as set forth in claim 2, wherein the at least one protocol layer converts RF signals received by the transceiver unit over an air interface to information suitable for transmission over the public network to the access network controller.

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6. The transceiver unit, as set forth in claim 2, wherein the at least one protocol layer provides security information to the access network unit to facilitate secure communication over the public network.

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7. The transceiver unit, as set forth in claim 2, wherein the at least one protocol layer negotiates quality of service for communications with the access network unit over the public network.

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8. The transceiver unit, as set forth in claim 2, wherein the at least one protocol layer encapsulates higher layer protocol information to facilitate protocol requirements of the public network.

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9. The transceiver unit, as set forth in claim 2, wherein the at least one protocol layer comprises at least one technology dependent protocol layer.

10. The transceiver unit, as set forth in claim 1, wherein the public network comprises the internet.

5 11. The transceiver unit, as set forth in claim 1, comprising at least one antenna to facilitate communications between the transceiver unit and at least one portable communications device over an air interface.

10 12. The transceiver unit, as set forth in claim 11, comprising a structure on which the at least one antenna resides.

15 13. The transceiver unit, as set forth in claim 12, wherein the structure comprises a tower.

20 14. The transceiver unit, as set forth in claim 12, wherein the structure comprises a building.

15. The transceiver unit, as set forth in claim 1, comprising a structure for housing the communication interface.

16. The transceiver unit, as set forth in claim 15, wherein the structure comprises a cabinet.

5 17. A tangible medium having a software program for use in a wireless communications system, the software program comprising:

at least one routine for facilitating communication of information over an undedicated public network between at least one transceiver unit, which is adapted to communicate over an air interface with portable communications devices, and an access network unit, which is adapted to process information communicated with the at least one transceiver unit.

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15 18. The tangible medium, as set forth in claim 17, wherein the at least one routine facilitates communication information over the internet.

20 19. The tangible medium, as set forth in claim 17, wherein the at least one routine comprises at least one protocol layer adapted to facilitate communication over the public network.

20. A method of producing an information packet in a wireless communications system, the method comprising the acts of:

receiving information by a transceiver unit via an air interface; and

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processing the information to form an information packet suitable for

transmission to an access network unit via an undedicated public network.

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21. The method, as set forth in claim 20, wherein the public network comprises the internet.

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